NOKIA
230 T
# Mediamaster

User Guide

NOKIA
CONNECTING PEOPLE

EN
Nokia hereby declares that this digital receiver, Mediamaster 230 T, is in conformity with essential requirements and other relevant provisions of Directive 1999/5/EC. This Terminal Equipment is intended for connection to the analogue Public Switched Telephone Networks (PSTNs), in which network addressing, if provided, is by means of Dual Tone Multiple Frequency (DTMF) signalling.

NOKIA

Declaration of Conformity

Manufacturer:	Nokia Corporation through its unit Nokia Home Communications
Address:	Keilalahdentie 4, FIN-02150 Espoo, Finland

Declares that the product

Product:	Digital Receiver 230T with infrared remote control

is in conformity with the following Directives and Standards

Directives:	73/23/EEC 93/68/EEC 89/336/EEC 92/31/EEC 1999/5/EC
Standards:	EN 300 328-2 V1.2.1 (2001-12) EN 301 489-1 V1.4.1 (2002-08) EN 301 489-17 V 1.2.1 (2002-08) EN 55013: 1990+A12+A13+A14 EN 55020: 1994+A11+A12+A13 EN 55022: 1998 (class B) EN 55024: 1998 EN 61000-3-2: 2000 EN 61000-3-3: 1995 EN 60065: 1998

Turku, 14th of February, 2003

Nokia Home Communications

Kimmo Ojuva
Head of R&D

Quick Guide

Connecting a TV and a video recorder
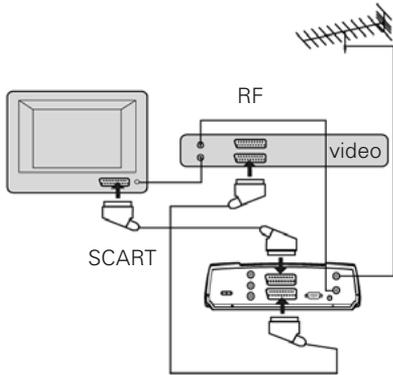
Preparing the Remote Control
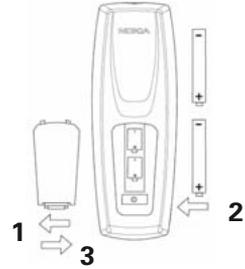
Switching on for the first time

- Plug in your Mediamaster.
- The "First time installation" menu is shown
- Press the **select** button on the remote control to start the installation procedure.

Language

- Select the desired menu language with **cursor up/down.** (Cursor = see page 9.) This will also become the main language for audio and subtitling.
- When you now press **select** again to confirm your choice of language, you simultaneously start the searching for TV/radio channels.

Channel search in progress

This menu will be shown as long as the Mediamaster is searching for TV and radio channels.

All channels found will be listed on the screen.

Please note that the search procedure may take a few minutes. You may cancel the search at any time by pressing **select**.

When the search procedure has ended, a message will tell how many TV and radio channels have been found.

- Press **select** to continue.

Quick Guide

Time adjustment

The time is adjusted ± 1/2 hour at a time by using **cursor up/down**.

You can also adjust the minutes by using **cursor left/right**.

• Press **select** to finish the First time installation and watch TV channels.

Contents

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Itämerenkatu 11 - 13,

00180 HELSINKI

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General information about the Mediamaster

Throughout this manual you will notice that the everyday operation of your Mediamaster is based on a series of user friendly on-screen displays and menus. These menus will help you get the most from your Mediamaster, guiding you through installation, channel selection, viewing and many other functions.

All functions can be performed by using the buttons on the remote control, and some of the functions can also be performed by using the buttons on the front panel.

Please be aware that new software may change the functionality of the Mediamaster.

Should you experience any difficulties with the operation of your Mediamaster, please consult the relevant section of this manual, including the Troubleshooting, or alternatively call your dealer or a customer service adviser.

IMPORTANT! Read this before using the Mediamaster!

- Allow 10 cm space around the Mediamaster for sufficient ventilation.
- Do not cover the Mediamaster's ventilation openings with items such as newspapers, tablecloths, curtains etc.
- Do not place the Mediamaster on top of a unit that emits heat.
- Do not place naked flame sources, such as lighted candles, on the Mediamaster.
- Use a soft cloth and a mild solution of washing-up liquid to clean the casing.
- Do not expose the Mediamaster to dripping or splashing liquids.
- Do not place any objects filled with liquids, such as vases, on the Mediamaster.
- To give your Mediamaster an extra protection, e.g. at a thunderstorm, we recommend that you connect it via an external surge protection device.
- Do not connect or modify cables when the Mediamaster is plugged in.
- Do not remove the cover.
- Do not allow the unit to be exposed to hot, cold or humid conditions.
- Service should be carried out only at a Nokia Authorised Service Centre.
- Please note that the only way to isolate the Mediamaster completely from the mains supply is to unplug the mains cable!

Remote control

This section describes how to operate the Mediamaster using the buttons on the remote control. Some of the functions can also be performed by using the buttons on the front panel.

⏻   Press once to turn the sound off/on (mute).
Press and hold for a few seconds to switch the Mediamaster in and out of standby mode.

0 - 9   Change channel and to select individual menu options. Note: If 0 is entered as the first digit, the TV Release functionality is activated (see below).

0   To toggle between the 230 T and any equipment connected to the AUX Scart; e. g. a Video recorder or a satellite receiver.

info   In viewing mode: To display short and extended information (if transmitted) about current and next programmes. In Navi Bars with a bookmark in focus: Will show information about the bookmark.

back   Go back one level at a time within menus without storing any settings. To toggle between present and previous TV/Radio channel in viewing mode. Close the Navi Bars.

select   Confirm the selection of a highlighted item. Open the Navi Bars.

opt   Select options in viewing mode.

txt   Press to enter teletext (if available).

The cursor button

Cursor up
Move up in the menus and change to the next channel in viewing mode.

Cursor left
Move left/change settings in menus.
Decrease the volume level in viewing mode.
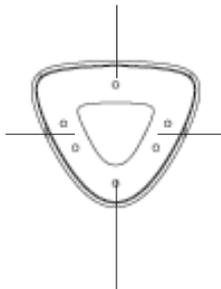
Cursor right
Move right/change settings in menus.
Increase the volume level in viewing mode.

Cursor down
Move down in the menus and change to the previous channel in viewing mode.

Front and rear panel

Front panel

▼ ▲
to change channels

Lid

Slot
for a CA module
with a smart card

Slot
Not in use

Button
push the button to
release a CA mod-
ule that has been
inserted.

Indica-
tor 1

Indica-
tor 2

⏻
to put the Mediamaster
in and out of standby
mode
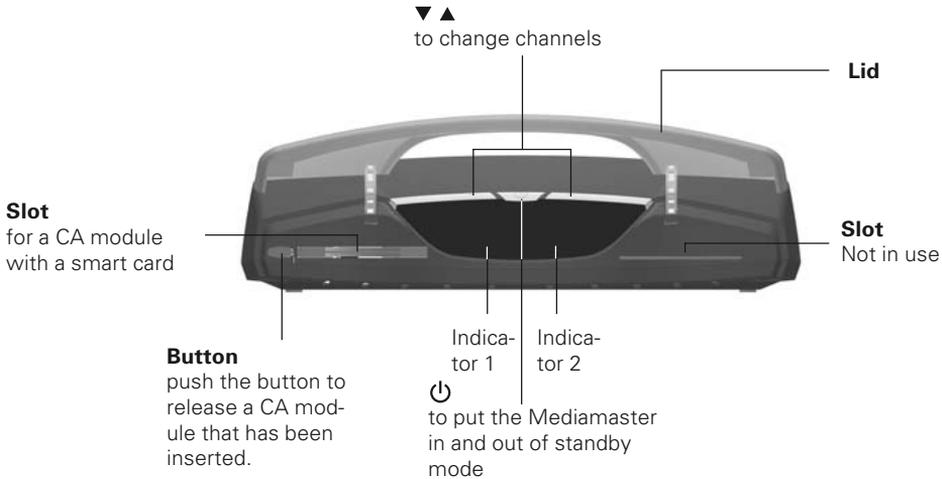
Function	Indicator 1	Indicator 2
ON	Green	Green
Standby	Red	-
Locked to channel	Green	Red if not locked.
Remote control feedback	Green	Single flash
SW download	Continuous green flashing	Continuous green flashing
Error	Continuous red flashing	Continuous red flashing

Rear panel

**DIGITAL AUDIO
RCA connector**
S/PDIF digital out-
put for connection
to a HiFi system

TV SCART
for connection
to the TV

TV aerial
for an external or an
indoor TV aerial

TV/VCR
for an RF-cable to the
aerial input of the TV
or VCR

Mains cable
110-240 V AC
50-60 Hz

Power supply
only for connection of a
NOKIA indoor TV aerial
with signal amplifier.
5V 30 mA.
Aerials from other
manufacturers may NOT
be powered from this
connection.

**AUDIO L R
RCA connectors**
stereo outputs for con-
nection to an analogue
HiFi system

AUX SCART
for connection to a VCR
or a satellite receiver

SERIAL PORT
for connection to
a PC

About the smart card and CA module

General

To be able to receive terrestrial scrambled digital channels you will need a CA module and a smart card from a Service Provider.

There are a few different CA modules on the European market. Each one of the CA modules support a certain kind of encryption system. The Mediamaster supports CA modules which are made to work according to the DVB standard. Depending on which country you use the Mediamaster in, your local dealer will provide you with the right type of CA module.

Please note that a smart card may only be valid for a single Service Provider and due to this, a specific range of channels.

The smart card and the CA module may cause special menus, not described in this manual, to appear. Follow the instructions from the Service Provider.

Note: CA modules and smart cards are only distributed by Service Providers and special distributors, not by Nokia.

After inserting a card, leave it in the slot permanently. Do not remove it again, unless you will be asked to do so. This is important because, for example, if your Service Provider wants to download new information to the smart card, the card has to be in the slot.

CA module
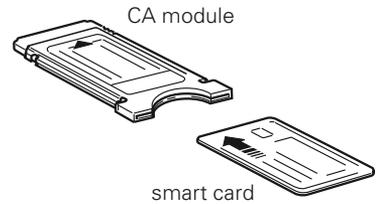
smart card

Inserting the CA module with a smart card

In the left slot you can use a CA module and a smart card from a service provider of your own choice.

Insert the CA module and the smart card according to the instructions provided with the module.

CA module

smart card
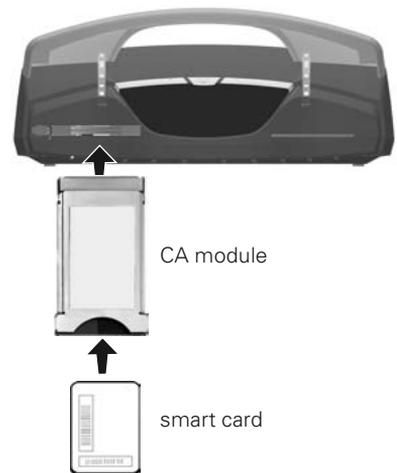
Connecting the Mediamaster

The box for your Mediamaster should contain the following items:

• the Mediamaster
• remote control with 2 AAA batteries
• SCART cable (fully connected; 1,0 metre)
• mains cable
• RF cable
• Owner's manual with software license agreement

SCART cable   RF cable   Mains cable

Remote control   Owner's Manual
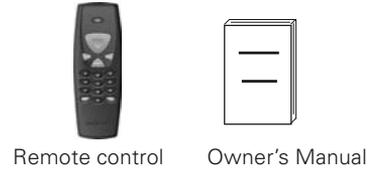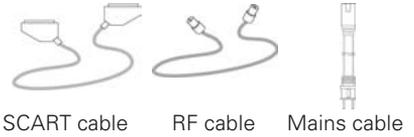
About the SCART sockets

The rear panel of the Mediamaster is equipped with 2 **SCART** sockets (see diagram). When you connect other devices to any of these sockets, always **use fully connected** SCART cables (as the one supplied.) There are SCART cables available which do not have all the pins connected. The picture quality could be reduced if you use them.

SCART socket

Preparing the remote control

• Remove the cover on the battery compartment at the bottom of the remote control.
• Insert the 2 AAA; 1,5 V batteries, as shown in the diagram, taking care to observe the **+** and **-** markings indicated inside.
• Replace the cover.
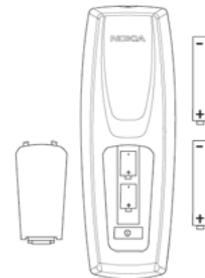
About the digital transmission

Digital Radio and TV signals can be blocked by buildings, mountains and the terrain. Depending on if the receiver is located in a depression in the ground, behind a mountain or in a concrete building, the quality of reception may vary considerably.

Reflections can be used for reception by directing the aerial towards a mountain or a high building, providing that they do not block the transmitter.

As with most other transmissions, bad weather does affect the reception quality negatively.

Connecting to the TV aerial

You can connect the Mediamaster to the following type of aerials:

1. Standard outdoor aerial

Where possible, use an outdoor roof aerial intended for receiving UHF channels between 21 and 69.

Please note the following:

- In some block of flats, the roof-mounted aerial system includes a filter and channel selector. If so, the aerial will probably not work with the Mediamaster. Please consult the landlord.
- Many older roof-mounted aerials may only receive a limited number of channels. As a result, digital channels transmitted on higher frequencies are difficult or even impossible to receive. The problem can be solved by replacing the roof aerial.
- Some outdoor aerials are directed towards an analogue transmitter. The aerial must be directed towards a digital TV transmitter.
- It is not always advisable to position the aerial as high as possible. If problems arise, experiment with different aerial heights.
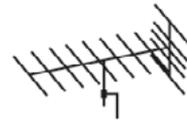
2. Indoor and window-mounted aerials

This type of aerial may be enough if the reception conditions are very good. If an indoor aerial is used, please note the following:

- Use an aerial for UHF channels 21 - 69, such as a directional aerial.
- Place the aerial by the window and directed towards the TV transmitter, if possible.
- The Nokia aerial with an amplifier is recommended as it may provide a stronger signal.
- The strength of the TV signal varies according to reflections from e. g. buildings. The signal penetrates thick stone or concrete walls poorly. However, a wooden building is not a big barrier to digital TV signals.
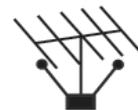
Connecting the Mediamaster

General

There are many different types of TV/VCR and other equipment that you can connect to the Mediamaster.
In this manual you will see some of the most common ways to connect your equipment.

If you have problems with your connections and need help, contact **your dealer**.

Connecting the Mediamaster to the TV

- Connect a SCART cable between the main SCART socket on the TV and the TV SCART socket on the Mediamaster.
- Connect an RF cable from the TV/VCR output on the Mediamaster to the RF input socket on the TV.
- Connect the TV aerial to the TV AERIAL input socket on the Mediamaster.
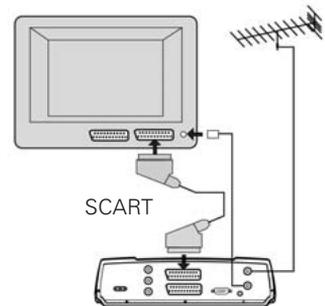
Connection of a video recorder

- Connect a SCART cable between the main SCART socket on the TV and the TV SCART socket on the Mediamaster.
- Connect an RF cable from the TV/VCR output on the Mediamaster to the RF input socket on the video.
- Connect the TV aerial to the TV AERIAL input socket on the Mediamaster.
- Connect an RF cable from the TV/VCR output on the video to the RF input socket on the TV.
- Connect a SCART cable between the TV SCART socket on the video and the AUX SCART socket on the Mediamaster
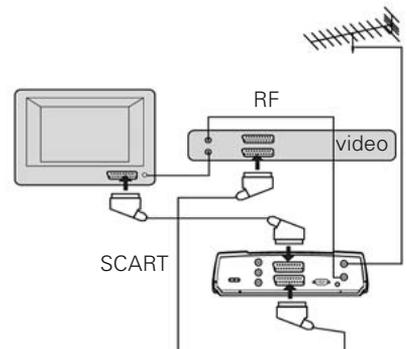
Connecting the Mediamaster

Connecting a HiFi system

- Connect an RCA/Cinch stereo cable from the AUDIO L R sockets on the Mediamaster to the LINE, AUX, SPARE or EXTRA input sockets on your HiFi system.

- If available you can connect an RCA/Cinch single cable from the DIGITAL AUDIO socket on the Mediamaster to a HiFi system equipped with digital audio input. This output is also used for connection to an external Dolby™ digital decoder.

   Note: To avoid interference you must use **screened** audio cables. Never connect digital output to any analog input.
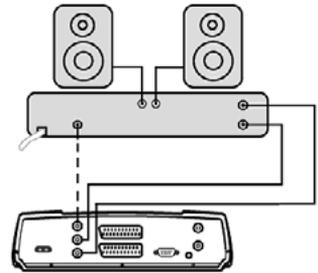
Procedure when RF connections are used

This procedure is necessary only when your Mediamaster is connected to the TV with an RF lead and no SCART leads are used.

To tune your TV to the RF signal you might also need your TV manual in addition to this manual. The steps below explain what to do if you have been unable to use SCART leads in your connection.

- Plug in your Mediamaster to the mains.

   Tuning your TV to the Mediamaster

- Select a programme number on the TV that is not currently used for other TV channels.

- Follow the instructions in your TV manual to tune the TV channel selector to UHF channel 43 (this is the Mediamaster's factory preset UHF channel).

- Follow the instructions in your TV manual to store this UHF channel as the channel used by your Mediamaster. You will have to select it when you want to watch terrestrial digital TV channels.

- When the First time installation menu is visible, press the **Select** button on the Mediamasters remote control to start the installation procedure.

If the picture quality is bad you can later change the predefined UHF channel 43 to any other figure between 21 and 69. You will also have to tune your TV to the same (= the new) channel number. Please see **RF modulator output channel** setting on page 30.

When you have a VCR connected it must be tuned to a different UHF channel (between 21 to 69) than the Mediamaster.
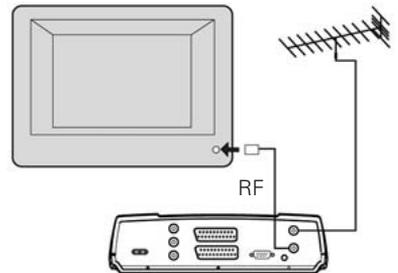
First time installation

General information

Once you have correctly connected the Mediamaster, you also have to perform a "First time installation."
During this procedure, helpful information is displayed at the bottom of the menus.

Please note!
The **select** button always **confirms** a selection within these menus, and pressing it will take you to the next step in the installation process. However, and this is important, often more than one value has to be entered in a menu. First, perform all necessary settings on the different lines. Then, confirm them all simultaneously by pressing **select**.

You can always go back to the previous menu by pressing **back**.

Use **cursor up**/**down** to move upwards and downwards from one line to another.

Use **cursor left**/**right** to change settings.

You can also use the numeric buttons on the remote control to enter numeric values.

Switching on for the first time and start the "First time installation"

- Plug in your Mediamaster
- The "First time installation" menu is shown.
- Press **select** to continue.
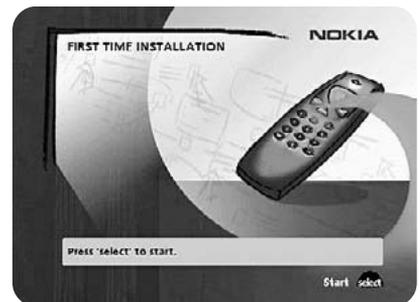
Language

- Select the desired menu language with **cursor up**/**down**.
  This will also become the main language for audio and subtitling.
- When you now press **select** again to confirm your choice of language, you simultaneously start the searching for TV/Radio channels.

First time installation

Channel search in progress

This menu will be shown as long as the Mediamaster is searching for TV and radio channels.

All channels found will be listed on the screen.
Please note that the search procedure may take a few minutes.
You can cancel the search at any time by pressing **select**.

When the search procedure has ended, a message will tell how many TV and radio channels have been found.

• Press **select** to continue.

Time adjustment

The time is adjusted by using **cursor up/down**, ±1/2 an hour at a time.

You can also adjust the minutes by using **cursor left/right**.

• Press **select** to finish the first time installation and to open the Navi Bars.
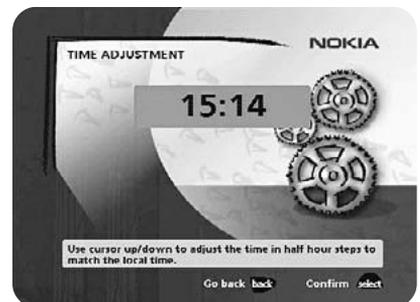
Viewing mode

General Information

The following describes the basic functions of your Mediamaster while watching terrestrial digital TV .

Some of the functions described here are dependent on the Service Provider and can only be used if they are included in the transmitted programme information.

Please note, that during the Channel Search procedure, the Mediamaster may download a large number of channels. This may include channels from various Service Providers, also those to which you do not have access. If you select a programme to which you do not have access, you will get a message on the screen.

In addition to the normal functions like switching the Mediamaster in/out of standby, changing the volume etc. there are some other useful functions which will be explained in this part of the manual.

You can always leave a menu at any time you want, without affecting any settings, by pressing the **back** button.

Programme information

Every time you change channels you will receive programme information for a few seconds. (In the Control folder/User preferences' menu you can select how long this information will be shown.)

The information may include:
Current time.
Channel list.
Channel number and name.
Name of the current and next programme.
The start and stop time of the current programme.
A bar, indicating the elapsed time of the current programme.
The start and stop time of the next programme.

Programme information will only be available if it is included in the transmission. Otherwise a "No information available" message will be shown.

Information about the current pro- gramme

Channel name and number

Current time

Information about the next programme

Name of channel list
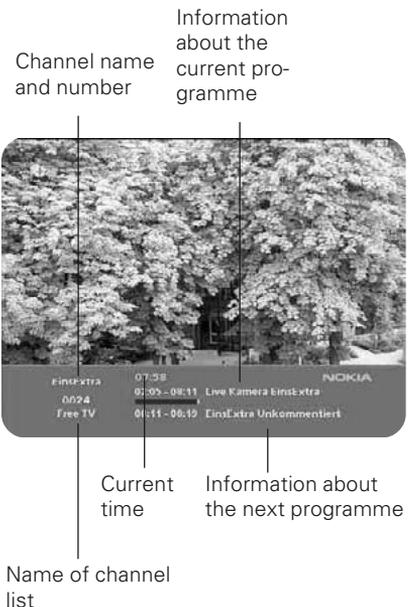
Viewing mode

Extended programme information

The Mediamaster can display information about programmes currently being broadcasted as well as those that will be broadcasted next.

This procedure is the same for both TV and radio mode.

By pressing **info** while watching TV you will get the "Programme information" banner. Press **info** again to display extended information about the current and the next programme. Use **cursor left** /**right** to switch between the current and the next programme information.

When there is a lot of information text, use **cursor up**/**down** to continue reading on the next info page.

You cannot switch to another channel while the banner is visible.

• Press **info** or **back** to return to TV/radio mode.

Temporary settings

By pressing **opt** you open a menu in which it is possible to enter **temporary** settings. Settings made in this "options menu" are only valid for the programme you currently are watching. If you leave the programme and return to it again, the temporary settings will be gone.

Audio language
When available, you can select among the different languages being broadcast. Please note; When you select AC-3 there will be no sound output from the analogue audio connections.

Subtitle language
When available, you can select among different subtitle languages.

Picture format
If you have a TV set with a 4:3 picture format, and the transmission is in 16:9, you can select Fullscreen or Letterbox to change display format.

Fullscreen will enlarge the centre of the picture to fill the screen. In this way some parts of the original programme contents will not be shown.

fullscreen   letterbox

Letterbox will give a complete picture, but leave black areas at the top and bottom.

• Press **opt** or **back** to return to TV/radio mode.

Viewing mode

External equipment

Use the 0 (zero) button to toggle between the 230 T and any equipment connected to the AUX Scart; e. g. a Video recorder or a satellite receiver.

Teletext

Pressing **txt** will open a teletext page (if teletext is transmitted.) Select teletext pages with the numeric buttons on the remote control. See figure 1.

You can also quickly go to the different page alternatives shown in any page by pressing **cursor left/right**.

- Press **select** on a highlighted page number to go to that page.
- By pressing "**0**" you can alter between the two last pages you just have watched.
- Press **info** to hide everything of a teletext page except its headline. See figure 2.
- Sometimes a teletext page may contain subpages. When subpages are available, they are numbered in the lower part of the screen. See figure 3. To view a subpage, press **select** when no page number is highlighted. Step to the different subpages with **cursor left/right**. Please note: It might take some time before all subpages are available for selection.
- Press **txt/back** to return to TV/radio mode.

Cursor up/down will show the next or previous teletext page.

On most new TV sets you can use the TV's remote control to open and control the teletext functions while watching digital TV channels. (The function is called VBI insertion.)


Figure 1
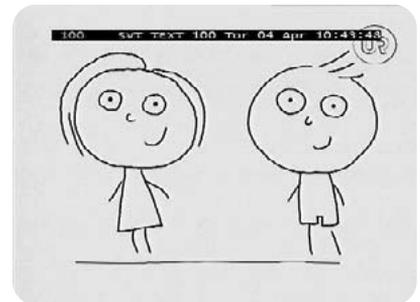
Figure 2

Figure 3.   Subpage numbers

Navi Bars

General information

• Press **select** to open the **Navi Bars**.

In order to select TV and radio channels and to change system settings you will use the Navi Bars.

The horizontal row contains **folders**, e. g. **All TV**, **Settings** and so on. Their names are shown with black text at the bottom of each folder.

Each folder contains **bookmarks**. The All TV folder contains bookmarks for the different TV channels; the Control folder contains bookmarks for some system settings and so on.

You move a folder horizontally by pressing **cursor left/right**.

When a folder is moved to **focus**, the bookmarks will be shown in a vertical row. The name of the different bookmarks are shown with white text at the top of each bookmark.

You select a bookmark by pressing **cursor up/down**. To confirm the selection, press **select**.

Below the folder bar some information about the bookmark in focus is presented. When a TV or radio channel bookmark is in focus, this box can contain three different symbols after the channel name:

"★" = new channel you have not previously visited.

"▱" = channel is scrambled according to the service information.

"🔒" = channel is locked by the user.

With a TV or radio programme bookmark in focus you can get programme information by pressing **info**.
When you press **opt** you get a detailed channel information about the TV or radio programme bookmark in focus.

When you press **info** with a bookmark from the control or settings folders in focus, you get more detailed information about what you can do in that menu.

You can leave the Navi Bars at any time by pressing **back**.

If you open the Navi Bars and do not press any buttons on the remote control, the Navi Bars automatically closes after 2 minutes.

Bookmark name
Bookmark
Bookmark in focus
Folder name
Folder
Information box
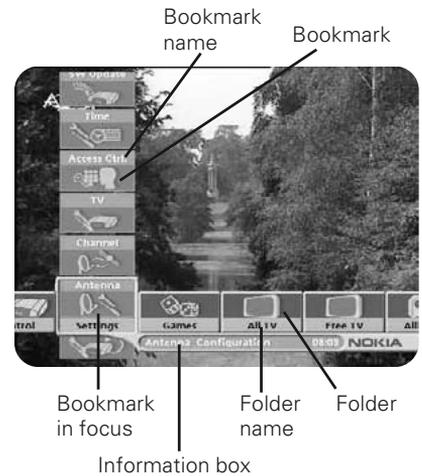
Navi Bars

The "Control" and "Settings" folders

Both of these **system folders** contains a few bookmarks. Each of these bookmarks contains **menus** from where you can make different settings.

The system folders can not be deleted.

The manual will now explain the different settings you can perform from the **Control** and **Settings** folders, starting with the bookmarks from the **Control** folder.

Control folder ☛ User

Banner Time-out

When you switch channels, an information banner will be shown for a few seconds. You can select how long the banner will be shown.

Volume bar

Select whether or not you want the volume bar to appear on the screen when you change the volume.

Volume bar time-out

Select how long the volume bar will be visible on the screen.

Subtitles

Select whether or not subtitles will be visible on the screen.

Main Subtitle Language

If you select the "Visible" alternative for subtitling and more than one language is available, you may select a main language.

Main Audio Language

If more than one audio language is transmitted, you may select the main language.

Menu Language

Here you may select in which language the menus will be shown.

Channel list icons

In order to make the bookmark lists for TV and Radio channels shorter you can select to hide the icons and only show the channel names. See figures to the right.
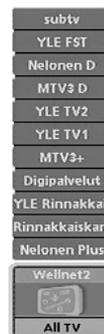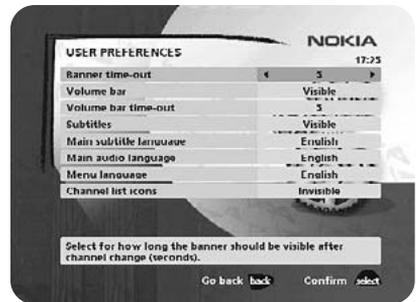
Invisible   Visible

Navi Bars

Control folder ☛ Edit channels

From these menus you can create and edit favourite channel lists. You can add, delete, rename and arrange the order of the channels within the favourite lists.

The "All TV" list might contain lots of channels. By creating your own favourite lists you can make channel handling more convenient.

Important about editing channels

Before you start you must select which list, TV or radio, you want to edit. When you are watching TV and press **select** and choose Edit channels, you can only edit TV channels.

When you are listening to radio channels you can edit radio channels.

After the selection, radio or TV, use **cursor left/right** to select the name of the list to edit.

Create list

From here you create your own favourite lists, containing the channels you watch most frequently. You must give each list a specific name, e.g. "Sport" or "Films". The new lists you create will appear as a new **folder** in the horizontal part of the Navi Bars.

When a favourite list is selected, you see only those channels defined in the list.

When you have given the list a name; press **select** and choose "Add/Delete Channels" from the menu.

You can create separate favourite lists for TV and radio channels.

How to give a specific name

This procedure is the same whether you enter a name for the first time or change an existing.

• Move to a new character position by using **cursor left** or **cursor right**.

• If you enter a wrong character, you can remove it by pressing **txt** as many times as needed.
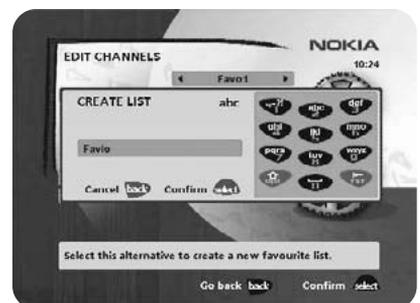
Navi Bars

- **Enter the name as follows**:

  Press the numerical button corresponding to the character you want: once for the first character, twice for the second and so on.

  The available characters are listed below.

❶   * # & % $, ! ; - +) / \ @ ^ 1   **❻**   m n o 6 Ö Ô Ñ Ó Ò

❷   a b c 2 Å Ä Á Á Â C Ã   **❼**   p q r s 7 $

❸   d e f 3 É É Ë Ê   **❽**   t u v 8 Ü Ù Ú

❹   g h i 4 Î Ï Í Ì   **❾**   w x y z 9

❺   j k l 5   **❿**   space 0

- If the next letter is located on the same key as the present one, wait for the time-out or press **cursor right** to move one position and then select the letter.
- Toggle between capital and lowercase letters with **opt**.
- To insert a space, press numerical button number **0**.

Delete list

If you want to delete a favourite list completely, select the list with **cursor left/right** and press **select**.

Rename list

You can give an existing list a new name by following the instructions under the headline **How to give a specific name**, page 23.

Rearrange lists

If you have created several favourite lists you can determine the sequence in which the lists will appear.

- With **cursor right**, mark the list you want to move to a new position.
- Move the list to the desired position with **cursor up/down** and press **cursor left**.
- Press **select** to confirm the new position.
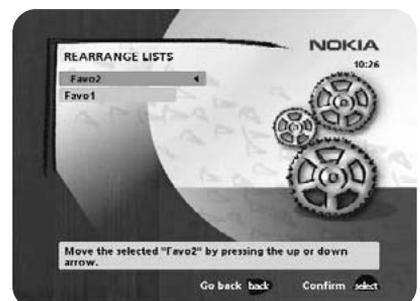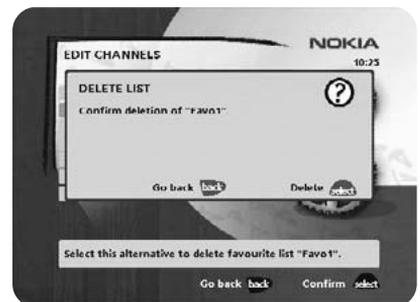
Navi Bars

Add/Delete channels

From this menu you add and remove the channels in your favourite lists. You use the "All TV" or "All radio" list as basis to select the channels from.

A channel is added or removed from the list by pressing **info**. The square to the right on a line will be empty for removed channels, and will contain an "**x**" for added channels. Beside the channel name three different symbols can be shown. ("★" = a new channel you have not previously visited. "⬛" = the channel is scrambled according to the service information. "🔒" = the channel is locked by the user.)

- Move to the desired channel(s) with **cursor up/down**.
- Press **opt** if you want to preview the channel.
- Add/remove by pressing **info**.
- When you are ready, confirm the selections and leave the menu by pressing **select**.
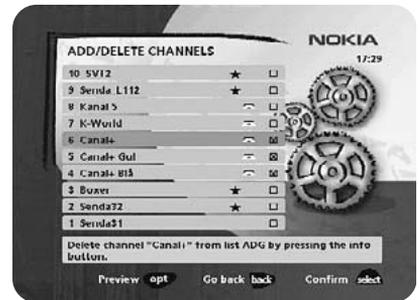
Rearrange channels

From here you can arrange the sequence for the channels within your favourite lists.

- Move to the desired channel(s) with **cursor up/down**.
- Press **opt** if you want to preview the channel.
- With **cursor right**, mark the channel you want to move to a new position within the list.
- Move the channel to the desired position with **cursor up/down** and press **cursor left**.
- Press **select** to confirm the new position.
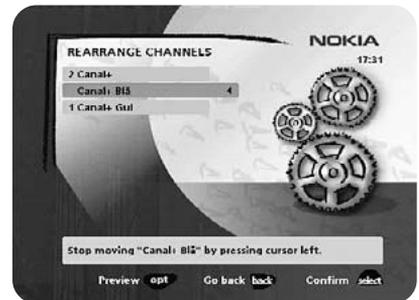
Lock channels

To get to this menu you first have to enter your access code.

From here you can lock (and later unlock) channels in order to prevent e.g. your children from watching.

- Select the channel you want to lock and press **info**. Repeat the procedure for each channel you want to lock.
- Press **opt** if you want to preview the channel.
- Press **select** to confirm.

A locked channel will be marked with a "🔒" (padlock) symbol. You must enter your access code before you can watch a locked channel.
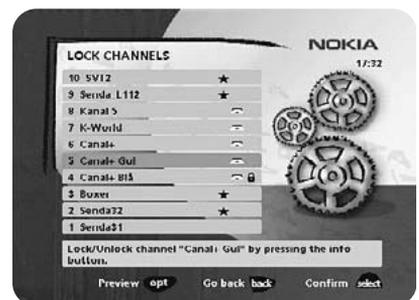
Navi Bars

Viewing images received from an external device. (Bluetooth connection)

General

230 T is equipped with a built in Bluetooth module that makes it possible to receive, watch and also save digital images transmitted from an external device. This device must be equipped with the Bluetooth Standard Version 1.1 and "Object Push Profile". No cables are necessary as the transmission is wireless. The distance between the transmitting device and the 230 T should not exceed 10 meters to ensure good transmission.

Before the 230 T can start to receive images, some settings have to be made. Refer to **Control folder ☛ Connections**.

About the Images folder in the Navi Bars

Received images can be saved into a folder named **Images**. This folder will automatically be created in the Navi Bars as soon as you save your first picture. You save a received image by pressing **select**, delete it by pressing **back**.

You can watch images up to 256 Kbyte size. The Image folder can contain 36 images of max size 64 Kbyte/image. Please note that only JPEG images with VGA resolution of max. 640 x 480 pixels are supported.

Images in the folder will be visible as "Thumbnails". To start watching an image, mark it in the Image folder and press **select** on the remote control. While watching an image you can select another by pressing **cursor up/down**. You also have the possibility to delete the image you are watching by pressing **opt**, or all images by pressing **txt**. If you delete all images, also the Image folder will disappear from the Navi Bars. A new one will be created the next time you save an image.

You stop watching an image by pressing **back**.

Control folder ☛ Connections

Connectivity

Yes The Bluetooth function is enabled and the receiving of images is possible.

No The Bluetooth function is disabled and the receiving of images is not possible.

Selecting **Yes** also means that the external device during its searching for a suitable Bluetooth receiver to send images to, should be able to find the 230 T. If it does not find it, the reason might be that **No** is selected.
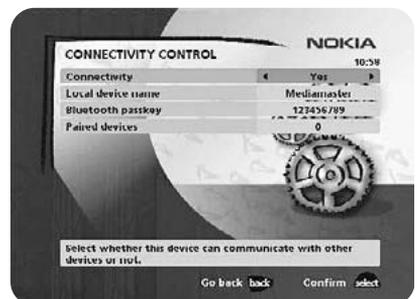
Navi Bars

Local device name

The 230 T is named Mediamaster on this line. This is also the name the external device will find during its search procedure. You can enter another name with the number buttons on the remote control. Press any number button and a keyboard will be shown on the screen.

How to enter a new name, please refer to page 23.

Bluetooth passkey

The very first time you want to send an image to the 230 T a passkey has to be entered in the transmitting device. By default this passkey is set to 123456789 on this line. **It is highly recommended to change it immediately**. The length of the passkey must be at least 8 and max. 16 characters.

The reason to change the key is, that if e.g. your neighbour also has a 230 T and neither you nor the neighbour has changed the 123456789, you may send pictures to each others boxes!

Paired devices

Will show how many external devices that have access to the box. You can prevent all external devices from having access to the box by pressing info. To get new access to the 230 T you have to enter the passkey again.

Restrictions

The Bluetooth products are not approved for use everywhere. Please check with the local authorities.

That 230 T is equipped with the Bluetooth connectivity function is indicated on the Type label on the underside of the box with the symbol shown below.

Navi Bars

Control folder ☛ Timer

General

You can make the Mediamaster to start and stop at a predefined time.

The timer function is very useful when you want to record a programme and you are unable to start/stop the recording event yourself, or when you just want to be reminded of the start of a programme you do not want to miss.

Note! The timer function only works when the receiver is in standby.

Timer setup

- First, select Channel List with **cursor left/right**.
- Then, step to Channel to select the desired TV/Radio channel.
- Set the date using the numerical buttons on your remote control (yy/mm/dd).
- If you enter a wrong digit you can erase it with **cursor left**.
- Set the start and stop time using the numerical buttons on your remote control.

The different start times may never overlap each other. If you try to enter a start or stop time within an already occupied period of time you will get a warning message about it.

- Press **select** to save or **back** to cancel.
- Press **back** twice to leave the Navi Bars and return to viewing mode.
- Press ⏻ to put the Mediamaster in standby.

Up to 8 different events can be predefined. The events will be sorted in start time order.
At each stop time the box will return to standby.

You can erase a predefined event by pressing **cursor right**.

- Press **back** to cancel the deletion and **select** to delete the event.
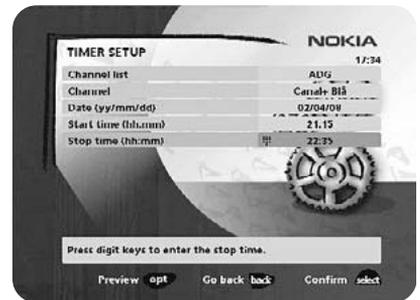
Control folder ☛ System info

If you have to contact your service provider or a service centre, they might ask for information available from this menu.

In the menu you find general information about which hardware and software version your Mediamaster is running on.

Navi Bars

Settings folder ☛ Channel

When you want to search for channels at a later time. To open this menu you will be asked to enter your access code.

From the factory the access code is set to 1234.

A channel search procedure can be performed in different ways: Automatic, Manual or Advanced manual search.

Automatic search

• Highlight the line and press **select** to start searching for channels.

Manual search

When you perform a Manual search you first need to enter some parameters for the channel search to work.

The information you need to enter in this menu should be supplied by your Service provider.

Channel: Select the channel you want to search for.

Network search: Select "Yes" if you want to search on all transmitters connected to a specific network.

• Press **select** to start searching for channels.
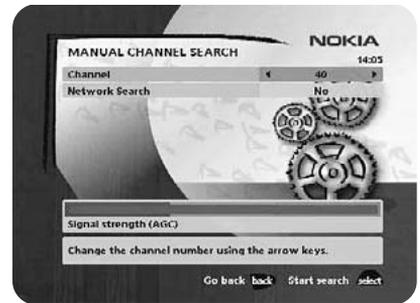
Advanced manual search

The information you need to enter in this menu should be supplied by your Service provider.

You can use this menu if you are looking for some "specific" channels (i.e. non-DVB standard channels) which can be more easy to find when you have entered the necessary PID settings here.

Channel: Select the channel you want to search for.

PID Video: Enter the PID (Packet Identifier) for the video signal.

PID Audio: Enter the PID for the audio signal.

PID PCR: Enter the PID for the PCR (Programme Clock Reference).

• Press **select** to tune with the specified values.

All channels created with advanced manual search will get an automatically generated name, e.g. P0001 for the first channel, P0002 for the second etc.

• Press **select** to save the new channel or **back** if you do not want to save it.

Navi Bars
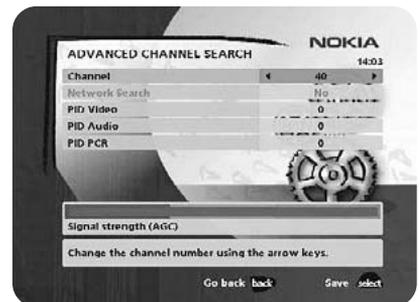
Settings folder ☞ TV

To open this menu you will be asked to enter your access code. **From the factory the access code is set to 1234**.

From here you can adjust the audio/video settings for your Mediamaster.

TV screen format

Select your TV screen format.

The 4:3 format is the standard format for most TV screens. Select 16:9 for a widescreen TV.

Position of the RGB output

Adjust the horizontal position of the TV picture with **cursor left/right**.

Transparency level

Adjust the transparency level of the graphics in the menus by using **cursor left/right**.

Digital audio format

Select audio format for **the digital output**. (The upper audio output on the rear of the Mediamaster). AC-3 when the sound is transmitted in Dolby™ Digital format. PCM for ordinary digital sound. Please note; When you select AC-3 there will be no sound output from the analogue audio connections.

Picture format

If you have a TV set with the 4:3 picture format and the transmission is in 16:9, you can select "Fullscreen" or "Letterbox".

Fullscreen will enlarge the centre of the picture to fill the screen. In this way some parts of the original programme contents will not be shown.

Letterbox will give a complete picture, but leave black areas at the top and bottom.

fullscreen   letterbox

TV standard

When the Mediamaster is connected to the TV by an RF cable, you may need to select the correct TV standard system.

Select **PAL G** when the box is used outside the UK and France.

Select **PAL I** when the box is used inside the UK.

Select **SECAM** when the box is used in France.

RF modulator output channel

Select this alternative if you have to change the RF channel. (Channel 43 is preset from factory.)
Select another RF output channel number from the right part of the RF modulator output channel line. Channels found during the first time installation will not be able to select.

When you change the RF channel number, you must also change to the same value on the TV. If you do not, there will be no picture and sound.
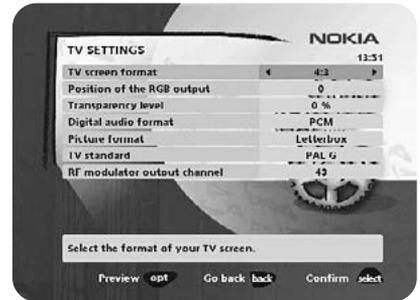
Navi Bars

Settings folder ☞ Access

To open this menu you will be asked to enter your access code. **From the factory the access code is set to 1234**.

The following settings can be altered from this menu.

Access Control

Select "Yes" or "No" to turn the access control in all menus on or off. Note: Even when "No" is selected, the access code still has to be entered before you can watch locked channels.

Receiver lock

If you select "Yes" you will have to enter the access code every time you start the Mediamaster from standby.

Age rating control

If you want everybody to have access to all available types of programmes, select "No"

If you select "Yes" you may block programmes unsuitable for children.

Age Limit

Select an age limit between 3 and 18 years on the line that appears.

However, you should be aware that not all Service Providers have the necessary codes for these functions implemented in their transmissions.

Change access code

**From here you can change the access code from the standard 1234. DO NOT FORGET IT! Without it you do not have access to any of the functions where the code is required!
If you forget it, you have to contact an Authorised Nokia Service Centre to get help.**
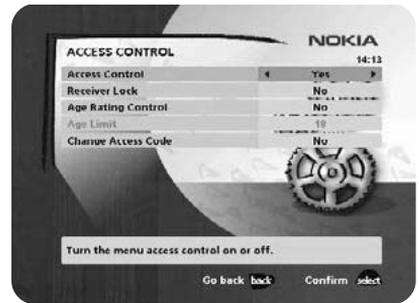
Settings folder ☞ Time

To open this menu you will be asked to enter your access code. **From the factory the access code is set to 1234**.

The time is adjusted by using **cursor up/down**, ±1/2 an hour at a time.

You can also adjust the minutes by using **cursor left/right**.
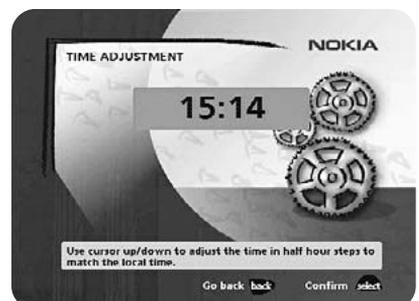
Navi Bars

Settings folder ☛ SW update

In order to keep the Mediamaster up-to-date, it will be possible to download new versions of the system software (SW). New software may include new or improved features for existing menus.

Enter this menu to check for new software. If new software is available you will get information in the menu on how to proceed.

You may have to select a specific channel in order to download new software.

If you select to download a new software version, **all** your previous settings, access code and favourite channels etc. will be erased!

IMPORTANT! The updating may take a while.

NEVER turn off the Mediamaster, never use the remote control or disconnect the antenna cable during the download procedure! This will damage the software and the receiver will have to be sent in for service!

Settings folder ☛ Reinstall

Use this option **only** if you have to start the complete installation procedure from scratch. If you continue from here, **all** your previous settings, access code and favourite channels etc. will be erased!

If you do not want to perform a reinstallation you can leave this menu when the warning is displayed by pressing "back".

Games folder

- When the Games folder is in focus, select a game and press **info** to get instructions how to play it.
- Press **select** to start a game.
- Press **back** to finish a game.

Glossary

AC-3
Multichannel digital audio encoding system.

Access code
A four-digit code stored in the Mediamaster. Used to lock/unlock the Mediamaster.

Access control
A feature that allows parents to "lock" programmes that they consider unsuitable for children. A "locked" channel or programme can only be "unlocked" with the special access code.

AGC
Automatic Gain Control.

BER
Bit Error Rate. Signal quality measure.

C/N
Carrier to Noise. Signal quality measure

DVB
The Digital Video Broadcast group was created to establish a technical framework for the introduction of digital video broadcasting systems.

GHz
The prefix giga means milliard, and Hertz means cycles per second. Signals in the GHz range are often called microwaves.

MHz
The prefix mega means million, and Hertz means cycles per second.

MPEG
Moving Picture Experts Group. Established by the International Standards Organisation to provide the basis for a picture coding and compression system.

Network
A number of digital channels transmitted from one source.

PCM
Pulse Code Modulation. Non-compressed digital audio format.

PCR
Program Clock Reference.

PID
Packet Identifier.

RCA
Coaxial connector used to connect the Mediamaster to an external amplifier.

RF
Radio frequency (known as HF in some countries).

RGB
Red, Green, Blue. Colour signals are routed in separate cables in order to provide a high quality TV picture.

SERIAL RS 232
A serial communication standard data port.

SCART
A 21-pin connector used for connection of the Mediamaster, VCR and TV. Also named Euroconnector or Peritel connector.

Scrambled TV programme
Some TV programmes are transmitted in scrambled form.

Service provider
Is a company that collects a number of programmes/services and distributes them to customers.

S/PDIF
Sony/Philips digital interface format. Digital audio output.

Symbol rate
Speed of the digital transmission

SW
Software. Programme code.

TS
Transport stream.

VCR
Video Cassette Recorder.

Troubleshooting

Problem	Possible causes	What to do
The LED on the front panel does not light up/is not lit.	Mains cable is not connected.	Check that the mains cable is plugged into the power socket.
The left LED is shining red	The Mediamaster is in standby mode.	Press the standby button to bring the Mediamaster out of standby mode.
The remote control is not working.	Battery exhausted. Remote control is incorrectly aimed.	Change both batteries. Aim the remote control at box. Check that nothing blocks the front panel.
You have forgotten your PIN code.		Contact your Service Provider. They will help you set it up again.
During the first time installation when the Mediamaster tries to find and store channels you get the message "No channels found". When only very few of the expected number of channels are found.	The aerial is not properly connected to the Mediamaster. The aerial is not correctly directed towards the transmitter. The aerial is not suitable for digital channels. The signal is to weak for the connected aerial. There are no terrestrial digital transmissions in the area.	Check the aerial installation including its connections. Check if you can receive and watch analogue channels from the transmitter. Check that the aerial is directed towards the transmitter. Check that digital transmissions are available in the area. If things does not work out as they should, let the local TV dealer check whether the aerial is intended for receiving digital transmissions or not. If not, you have to exchange the aerial.
There is no **First time installation** menu on the screen when you switch on the Mediamaster for the first time.	The system is connected by SCART cables and the TV is not in AV/EXT mode.	When the system is connected by SCART cables the TV must be set in AV/EXT mode.

What to do if you can't solve the problem?

If you have tried all of the actions suggested above, without solving the problem, please contact your dealer or Service Provider.

Technical specifications

Transmission Standards DVB, MPEG 2, OFDM

Input/output

Input connector	IEC female
RF input frequency	174-300; 474-862 MHz
RF input power level	-78 to -30 dBm
RF impedance	75 Ω
Frequency range	Loop through 47-862MHz
Frequency range	RF modulator 470-862 MHz
Output channel	CH 21-69
Preset channel	43
Output signal	PAL G, I, SECAM
Demodulation	Supports 2k and 8k

TV SCART

Video output	1 V_{pp} (±1 dB) / 75 Ω
Audio output	0.5 V_{rms} / R_L >10 kΩ
RGB output	Internal RGB
RGB bandwidth	5.8 MHz ±3 dB
Fast blanking output	Internal
Status output	0/6/12 V / R_L 10 kΩ

AUX SCART

Video output	1 V_{pp} (±1 dB) / 75 Ω
Video input	1 V_{pp} / 75 Ω
Audio output	0.5 V_{rms} / R_L >10 kΩ
Audio input	0.5 Vr_{ms} / R_L >10 kΩ
Status input	0/6/12 V / R_L >10 kΩ

DIGITAL AUDIO (S/PDIF)

Connector	1 x RCA

AUDIO R L

Connector	2 x RCA (R+L)
Output	0.5 V_{rms} ± 0.5 dB/ R_L 10 kΩ

SERIAL (RS 232) Serial data

Connector	9-pin D-sub male	
Signals	RS232, max. 115,2 kbit/s	
Pin	1 DCD	(Data carrier detect) not connected
	2 RXD	(Receive data)
	3 TXD	(Transmit data)
	4 DTR	(Data terminal ready) Set to high
	5 GND	(Signal ground)
	6 DSR	(Data set ready) not connected
	7 RTS	(Ready to send)
	8 CTS	(Clear to send)
	9 RI	(Ring indicator) not connected

Front panel
Two LED; Buttons: ⏻ ,▼ ▲

General data
The model code, variant and serial number, are located on a label on the underside of the housing.

Supply voltage	110-240 V AC, 50-60 Hz
Power consumption max	10 W
Power consumption in standby	5 W
Operating temperature	+5° C to +45° C
Storage temperature	- 40° C to +65° C
Humidity	25 to 75 % rel. humidity
Operating distance for remote control	About 10 meters
Dimensions (w x d x h)	250 x 275 x 80 mm
Weight	1050 g. approx.

SCART sockets

	TV	AUX
1	Audio out right ch.	Audio out right ch.
2	-	Audio in right ch.
3	Audio out left ch.	Audio out left ch.
4	Audio ground	Audio ground
5	RGB blue ground	-
6	-	Audio in left ch.
7	RGB blue signal out	-
8	Switch voltage out	Switch voltage in
9	RGB green ground	-
10	Connect to pin 10 in AUX scart	
11	RGB green signal out	-
12	-	-
13	RGB red ground	-
14	Fast blank. ground	Fast blank. ground
15	RGB red signal out	-
16	Fast blanking out	-
17	Video out ground	Video out ground
18	-	Video in ground
19	Video out	Video out
20	-	Video in
21	Ground (casing)	Ground (casing)

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